

REMARKS

Claims 1, 2, 13, 15 and 26, 27 and 29 have been amended, claims 25 and 28 have been cancelled, and claims 30 and 31 have been added. Accordingly, Claims 1-24, 26, 27 and 29-31 are pending in the application. Favorable reconsideration of the application is respectfully requested.

Claims 1, 5-7, 11, 12, 18-20, and 26, 27 and 29 stand rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent Application, Publication Pub No. 2002/0149673 (Hirama et al.). Hirama et al. disclose an image display system for displaying on a monitor within a vehicle, an image shot by a rearview camera mounted on the vehicle. The system is described with reference to an application for connecting a trailer to the vehicle, with the camera being mounted at the rear of the vehicle at a location vertically higher than the coupling member on the trailer which, in turn, is located vertically higher than the trailer hitch on the vehicle. The system includes an image processor that superimposes auxiliary line data on image data produced by the camera to convert the camera image to a virtual overhead viewpoint.

Claims 1 and 27 distinguish over Hirama et al. by reciting a target area located on the object to be removably connected to the vehicle, the target area having an alignment indicia located thereupon, and a video camera for installation in a fixed position on the vehicle, the video camera being oriented with a lens of the video camera facing toward the alignment indicia located on the target area, directly in a generally straight and level

manner at substantially the same height with respect to ground as is the alignment indicia when the object to be removably connected to the vehicle is in position for connection to the vehicle. Claim 26 recites, in a similar manner, a target area located on the other of the vehicle and the object to be removably connected to the vehicle, the target area having an alignment indicia located thereupon, and a video camera oriented with a lens of the video camera facing toward the alignment indicia on the target area, directly in a generally straight and level manner at substantially the same height with respect to ground as is the alignment indicia when the object to be removably connected to the vehicle is in position for connection to the vehicle.

Method Claim 29 recites providing an alignment indicia on the target area; and installing a video camera in a fixed position on the vehicle, orienting the video camera with a lens of the video camera facing the alignment indicia on the target area, directly in a generally straight and level manner at substantially the same height with respect to ground as is the alignment indicia when the object is in position for connection to the vehicle.

Hirama et al. does not disclose alignment indicia. Moreover, Hirama et al. teaches mounting the camera located at a point that is vertically above the coupling member on the trailer and the trailer hitch on the vehicle, sufficiently high to allow an image to be provided that can be converted to a virtual overhead viewpoint. Also, the camera is oriented directed downwardly at an angle to include the trailer coupling member and the

trailer hitch in the camera range. Similarly, Engel, cited against claims 2-3 and 21-24 for disclosing alignment indicia, discloses locating the downwardly-directed video camera on the truck, at a location that is well above the location of the alignment indicia which is located on the bed of the train car, or on the stanchion which is folded-down onto the train car bed while the truck is being driven on the train car.

In contrast, Claims 1, 26, 27 and 29 recite the video camera oriented with a lens of the video camera facing the alignment indicia directly in a generally straight and level manner at substantially the same height with respect to ground as is the alignment indicia when the object to be removably connected to the vehicle is in position for connection to the vehicle. This arrangement provides a simple, yet effective way for facilitating the alignment of a hitching mechanism located on a vehicle with a mating hitching mechanism located on an object to be removably connected to the vehicle. In view of the distinctions noted above and for the reasons indicated, it is submitted that Claims 1, 26, 27 and 29 distinguish patentably over Hirama et al., and Engel. Claims 5-7, 11, 12 and 18-20, which are dependent upon Claim 1, are believed to be allowable along with parent Claim 1.

Claims 2-3 and 21-24 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hirama et al. in view of United States Patent No. 5,452,982 (Engel). The rejection of claims 21-24 on the combination of Hirama et al. and Engel is not understood. The

Examiner stipulates that Hirama et al. does not show wireless transmitters and there is no mention of wireless transmitters in Engel.

Claims 2-3 and 21-24 are dependent upon Claim 1 which is believed to be patentable over Hirama et al. for the reasons stated above. As indicated above, Engel, cited for disclosing a hitching system that uses an alignment indicia, does not shown or suggest a video camera oriented with a lens of the video camera facing the alignment indicia directly in a generally straight and level manner at substantially the same height with respect to ground as is the alignment indicia. Moreover, Engel teaches away from such arrangement by showing locating the alignment indicia at a location on the bed of the train car, or on the stanchion requiring that the video camera be located above the alignment indicia and directed downwardly, to allow detection of the alignment indicia by the truck mounted video camera. Accordingly, it is submitted that Enger does not suggest modification of what is shown by Hirama et al. that would anticipate Claim 1. Therefore, dependent Claims 2-3 and 21-24 are believed to be allowable along with parent Claim 1.

Claims 8-10 and 21-24 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hirama et al. in view of United States Patent No. 6,222,457 (Mills). Claims 8-10 and 21-24 are dependent upon Claim 1 which is believed to be patentable over Hirama et al. for the reasons stated above. Mills, cited for disclosing a hitching system that uses wireless transmitters and receivers and RF waves/infrared reflecting

waves, does not disclose orienting a video camera or the use of an alignment indicia as recited in Claim 1. Accordingly, it is submitted that Mills does not suggest modification of Hirama et al. that would anticipate Claim 1.

Claims 8-10 further distinguish over Hirama et al. and Mills by reciting the video camera as including a wireless transmitter for transmitting video signals and the video monitor as including a wireless receiver for receiving the video signals from the wireless transmitter. In rejecting Claims 8-10 and 21-24, the Examiner stipulated that Hirama et al. does not disclose wireless transmitters. The alignment and proximity sensors disclosed by Mills are both optical-based sensors. Moreover, Mills does not disclose or suggest a video camera, or providing a transmitter/receiver pair to allow the transmission of video signals from a video camera to a video monitor as recited in Claim 8 or the transmission of a signal from the monitor to the video camera to activate the video camera as recited in Claim 9. Accordingly, it is submitted that Mills does not suggest modification of Hirama et al. that would anticipate claims 8-10.

Claims 13-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Accordingly, Claim 13 has been rewritten in independent form including all of the limitations of the base claim and any intervening claims and is now in condition for allowance. Claims 14-16, which are dependent upon

Claim 13 are also in condition for allowance. In addition, Claim 17, which was not rejected on prior art, is dependent upon Claim 15 and also is believed to be allowable.

New Claims 30 and 31 have been added. Claim 30 is directed to a system for facilitating the alignment of a hitching mechanism located on a vehicle with a mating hitching mechanism located on an object to be removably connected to the vehicle. Claim 30 distinguishes over Hirama et al., Engel and Mills by reciting a target area located on the object to be removably connected to the vehicle, the target area facing the vehicle when the object to be removably connected to the vehicle is in position for connection to the vehicle; a video camera for installation in a fixed position on the vehicle, the video camera being oriented toward the target area on the object to be removably connected to the vehicle when the object to be removably connected to the vehicle is in position for connection to the vehicle, the video camera including a wireless transmitter for transmitting video signals; and a video monitor for displaying thereon an image viewed by the video camera, the video monitor including a wireless receiver for receiving the video signals from the wireless transmitter. Claim 31 is dependent upon Claim 30 and further distinguishes over by reciting a wireless transmitter for sending a signal to turn on the video camera and wherein the video camera additionally includes a wireless receiver for receiving the signal to turn on the video camera. In view of these distinctions, Claims 30 and 31 are believed to be patentable over Hirama et al., Engel and Mills.

In summary, Claims 13-17 are in condition for allowance and Claims 1-12 and 18-24, 26, 27 and 29-31 are believed to be allowable for the reasons given herein. Accordingly, these claims remain pending following entry of this Amendment, and are believed to be in condition for allowance at this time. As such, Applicants respectfully request entry of the present Amendment and reconsideration of the application, with an early and favorable decision being solicited. Should the Examiner believe that the prosecution of the application could be expedited, the Examiner is requested to call Applicant's undersigned representative at the number listed below.

Respectfully submitted:

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